(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织 国际 局



(43) 国际公布日: 2005年5月19日(19.05.2005)

PCT

(10) 国际公布号: WO 2005/044417 A1

(51) 国际分类号7:

B01D 3/22, C08F 6/10

(21) 国际申请号:

PCT/CN2004/001194

(22) 国际申请日:

2004年10月21日(21.10.2004)

(25) 申请语言:

中文

(26) 公布语言:

中文

(30) 优先权:

200310103802.7 2003年11月6日(06.11.2003) CN

- (71)(72) 发明人/申请人: 刘兆彦(LIU, Zhaoyan) [CN/CN]; 中国北京市丰台区西罗园3区汇达公寓B座2105, Beijing 100077 (CN).
- (72) 发明人;及
- (75) 发明人/申请人(仅对美国): 施景云(SHI, Jingyun) [CN/CN]; 中国北京市丰台区西罗园3区汇达公寓B 座2105, Beijing 100077 (CN)。
- (74) 代理人: 北京金信联合知识产权代理有限公司 (KINGSOUND & PARTNERS); 中国北京市西城区 三里河东路5号中商大厦502室, Beijing 100045 (CN).

- (81) 指定国(除另有指明,要求每一种可提供的国家保护): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
- (84) 指定国(除另有指明,要求每一种可提供的地区保护): ARIPO(BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), 欧亚专利(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), 欧洲专利(AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

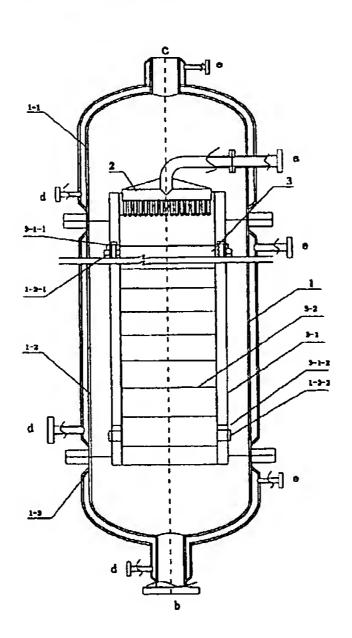
本国际公布:

包括国际检索报告。

所引用双字母代码和其它缩写符号,请参考刊登在每期 PCT公报期刊起始的"代码及缩写符号简要说明"。

(54) Title: A Devolatilization Tower falling films through the grid gaps

(54) 发明名称: 一种栅缝降膜脱挥塔



(57) Abstract: The devolatilization tower falling films through the grid gaps according to this invention consists of a tower body, a liquid distributor and a tower core, said tower core including pillars and multilayers of grid plates, the cross-section of said tower core being square or rectangular, and the pillars standing respectively at the four corners of the tower core. Each grid plate layer includes a pair of beams, several grids and corresponding guide members, among them said beam being located at the opposite sides of the grid layer and fixed to the pillars, said grid being perpendicular to the beams, and said guide member being installed between the grid gaps and guiding liquid to pass through those grid gaps, forming falling films and thus producing enormous devolatilization interfaces. This special design according to the invention ensures the substantial regeneration of each film surface. In view of the simple structure, high devolatilization efficiency, and high operation flexibility, as well as the low cost of manufacture and operation, the devolatilization tower falling films through the grid gaps could be used widely in a variety of devolatilization units in the chemical engineering field.

[见续页]



WO 2005/044417 A1

(57) 摘要

本发明涉及的一种栅缝降膜脱挥塔由塔体、液体分配器及塔芯组成, 所述塔芯包括立柱和多层栅板,其截面为正方形或矩形,立柱四根分立于 塔芯四角。各栅板层有一对横梁、多根栅条及相应的导流构件,横梁位于 栅板层对边,固定在立柱上;栅条与横梁垂直,导流构件置于栅条的栅缝 间,液体穿过各层栅缝降膜,产生巨大脱挥界面,本发明的特殊设计保证 各层膜面充分更新。该栅缝降膜脱挥塔结构简单、脱挥效率高、操作弹性 大、制造和运行费用低,可广泛用于各种化工脱挥操作单元中。